

1. (Amended) A safety syringe comprising:
- a) an interchangeable needle;
 - b) an elongated barrel having first and second ends, the interchangeable needle attached to a first end of the barrel;
 - c) a plunger sized and shaped to be received in the second end of the barrel and to be movable therein;
 - d) a movable base adapted to releasably constrain the needle;
 - e) a spring, at least partially compressed, said spring positioned entirely within the barrel and surrounding a portion of a base of a needle hub, said spring adapted to bias the interchangeable needle within the barrel; and wherein the plunger is moved within the barrel applying force to the interchangeable needle and causing the spring to retract the interchangeable needle within the plunger.
2. The syringe of claim 1 further comprising:
- a) retainer catches having flexible supports on the base.
3. The syringe of claim 2 further comprising:
- a) an integral sacrificial seal on the base.
4. The safety syringe of claim 3 in which the needle further comprises an interchangeable needle head, which is adapted for mating insertion with a needle hub associated with the first end of the barrel.
5. (Amended) The safety syringe of claim 4 in which the interchangeable needle head has a portion with threads thereon adapted for mating with [the] threads of the needle hub and for screwing the interchangeable needle head to the barrel and wherein the plunger has a rupturable web on one end through which the needle hub is forced when the spring triggers.
6. The syringe of claim 5 further comprising a circular groove on the needle hub for guiding the needle head into the syringe.
7. The syringe of claim 5 wherein the needle head is formed lock behind a needle catch in the plunger.

8. The syringe of claim 5 further comprising a needle guard releasably affixing the needle and needle head therein.
9. A method for operating a safety syringe with an interchangeable needle selected from a plurality of needles having differing characteristics, the method comprising:
- a) selecting a first needle from the plurality of needles;
 - b) associating the first needle with a syringe comprising a needle assembly, a barrel and a plunger;
 - c) injecting a fluid from the syringe;
 - d) moving a plunger having a seal through the elongated barrel into contact with a movable base in the elongated barrel;
 - e) forcing the base in the direction of the needle assembly such that a spring on the needle assembly triggers, thereby projecting the needle into a hollow of the plunger.
10. The method of claim 9 further comprising capturing the needle hub and the needle within the hollow of the plunger and locking the needle hub and plunger within the barrel.
11. The method of claim 10 further comprising guiding the needle head into the syringe by using a circular groove on the needle assembly.
12. The method of claim 11 further comprising the steps of:
- a) applying force to a thumb push of the syringe transmitting a force along the plunger to the base, which is deformable and coupled to supports;
 - b) continuing the application of force until the supports flex and close forcing a flange to move along a wall of a needle assembly allowing forward movement of the deformable base and the needle therein and compression of an energy storage means;
 - c) deforming the deformable base causing the flange to lose contact with the deformable base, which thereby releases energy stored within the energy storage means to project the interchangeable needle into a hollow of the plunger;

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d) locking the interchangeable needle in the plunger via a measuring means;

e) revealing a biohazard label viewable through the barrel; and

f) locking the plunger within the barrel to form a liquid tight seal between the plunger and the barrel.

13. (Amended) An interchangeable needle safety syringe formed by a process comprising:

a) threading a needle hub having a needle into a needle assembly, the needle assembly defining a passageway and including a spring thereon such that the needle hub is received in the passageway and the spring is partly compressed on the needle assembly;

b) inserting the needle assembly in a matable base of a hollow barrel, the base constructed and arranged to releasably retain the needle assembly said base being moveable within said hollow barrel;

c) biasing the base with the spring preventing unintentional movement within the hollow barrel; and

d) inserting a plunger having a seal within the hollow barrel until the plunger mates with the base.

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14. (New) The syringe of claim 1 further comprising at least one support member having a first end and a second end, said support member positioned within said barrel, said first end of said support member engaging said base, and a second end engaging an edge defined by a needle assembly, said edge positioned within an interior of said barrel.

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15. (New) The syringe of claim 14 further comprising a block defined by said needle hub, said block engaging an edge of a passageway defined by said needle assembly.

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16. (New) The syringe of claim 1 further comprising a plurality of fins defined along an exterior of said needle head, said fins adapted for mating with a corresponding slot defined by an interior of a needle guard.

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17. (New) The syringe of claim 1 wherein said needle hub defines a plurality of radially extending bars in mated engagement with a corresponding slot defined by an interior wall of a passageway defined by a needle assembly.
18. (New) The syringe of claim 1 wherein an interior of the barrel defines a tapered wall, an edge of said tapered wall providing a shelf upon which a first end of said base is positioned.
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